



CITY OF LODI

COUNCIL COMMUNICATION

AGENDA TITLE: Request for Marked Pedestrian Crosswalks Across Ham Lane at Lakewood Mall and Across Pine Street at City Hall

MEETING DATE: October 2, 1996

PREPARED BY: Public Works Director

RECOMMENDED ACTION: That the City Council review the following report regarding the installation of marked pedestrian crosswalks across Ham Lane at Locust Street and across Pine Street between Church Street and Pleasant Avenue and take no action.

BACKGROUND INFORMATION: The following report has been prepared based on a citizen's request at the August 21, 1996, City Council Meeting to install marked pedestrian crosswalks across Ham Lane at Locust Street to access Lakewood Mall and on Pine Street, midblock between Church Street and Pleasant Avenue, for direct access from City Hall to the Finance Department. The following report includes applicable State laws related to crosswalks, existing conditions, discussion and recommendations.

STATE LAWS: The California Vehicle Code (CVC) definition of a crosswalk is that portion of the roadway included within the prolongation or connection of the boundary lines of the sidewalk at intersections or any portion of the roadway distinctly indicated for pedestrian crossing by lines or other markings on the surface. Marked crosswalks are those designated with painted lines and unmarked crosswalks have no markings. Per CVC Section 21950, drivers shall yield the right-of-way to a pedestrian crossing the roadway within any marked or unmarked crosswalk. This Section does not relieve a pedestrian from the duty of using due care for his or her safety. This Section also states that no pedestrian shall suddenly leave a curb or other place of safety and walk or run into the path of a vehicle which is so close as to constitute an immediate hazard.

EXISTING CONDITIONS: Ham Lane and Locust Street is a "T" intersection located adjacent to Lakewood Mall. Land use along Ham Lane, a four-lane arterial street, is primarily commercial. Land use on Locust Street, a two-lane local street, is residential (**Exhibit A**). Traffic volumes on Ham Lane and Locust Street are 13,000 and 500 vehicles per day, respectively. Available accident data for the four-plus years from 1992 to the present indicates that there has been no pedestrian-related accidents at this location.

Pine Street west of Church Street is a two-lane collector street. The land use is commercial with City offices located on both sides of the street (**Exhibit B**). Traffic volumes on Pine Street are approximately 4,000 vehicles per day. Available accident data for the four-plus years from 1992 to the present indicates that there has been no accidents at this location.

DISCUSSION: The controversy between the public and local agencies over the use of marked pedestrian crosswalks seems unending. The public requests marked crosswalks based on the perception of increased pedestrian safety and convenience, while local agencies tout that marked crosswalks can be more dangerous than unmarked. Information related to studies performed on pedestrian accidents indicates there are more accidents involving pedestrians in marked crosswalks than in unmarked. Although the studies also show that more pedestrians will choose to use marked over unmarked crosswalks, there is a disproportionate amount of accidents occurring at marked crossings. This appears to be due to the false sense of security perceived by pedestrians when in marked crosswalks. This information indicates that marked crosswalks not only don't provide additional safety, they can be more dangerous than unmarked crosswalks. Based on these factors,

APPROVED: _____

H. Dixon Flynn -- City Manager

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marked crosswalks should be used to guide pedestrians and not as a safety device. Several articles related to crosswalk safety are available. Three of these articles, prepared by the Institute of Transportation Engineers, City of Buenaventura, and a Professional Engineer from Arizona, are attached as Exhibits C, D and E.

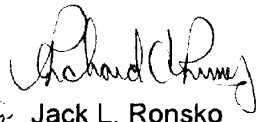
Public Works Department staff reviews existing crosswalk locations, such as Ham Lane and Locust Street, in conjunction with street maintenance projects. The crosswalk locations are reviewed based on land use in the immediate area, whether the crossing is on a suggested route to school, and proximity of alternate crossing locations that can provide a higher degree of safety. Although a crosswalk on Locust Street at Ham Lane would slightly reduce the distance Locust Street residents would have to walk (assuming they finish shopping in the middle of Lakewood Mall) the signalized crossing at Elm Street is approximately 250 feet away and only slightly increases the overall walking distance. Although accident data does not indicate there have been any recent pedestrian accidents at this location, our proactive approach is to reduce both the potential for accidents and maintenance costs by eliminating unnecessary marked crossings.

At midblock locations, such as at Pine Street between Church Street and Pleasant Avenue, staff is very reluctant to mark a pedestrian crossing for a number of reasons. Other than the fact that they do not increase pedestrian safety, drivers do not expect to see pedestrians crossing midblock. Additionally, there are existing marked pedestrian crossings at the signal at Church Street and at the uncontrolled intersection at Pleasant Avenue.

This does not mean that marked crosswalks do not have their place, they just should not be used indiscriminately. Using them to identify recommended locations to cross (guidance) based on increased safety should be the priority. It is especially important when you consider that children associate safety with marked crosswalks, just as adults do, and are taught to use marked crosswalks whenever possible.

RECOMMENDATION: As Council is aware, the City was recently awarded funding from the Office of Traffic Safety to improve pedestrian safety. While we are excited about the funding, unfortunately, we received the funds due to the City's higher-than-average number of pedestrian accidents when compared to other cities in the same population range. Based on this factor, the City has been working towards reducing pedestrian accidents. As part of this goal, education will be provided at the elementary school level as well as other action performed on a citywide basis. These actions include eliminating crosswalks at some locations. While no crosswalk is totally safe, we hope to encourage pedestrians to use crossings that will provide a higher degree of safety, even if it means they may have to walk a little further. Based on these factors we do not recommend the installation of crosswalks at either of these locations.

FUNDING: None.


for Jack L. Ronsko
Public Works Director

Prepared by Rick S. Kiri, Senior Engineering Technician
JLR/RSK/lm

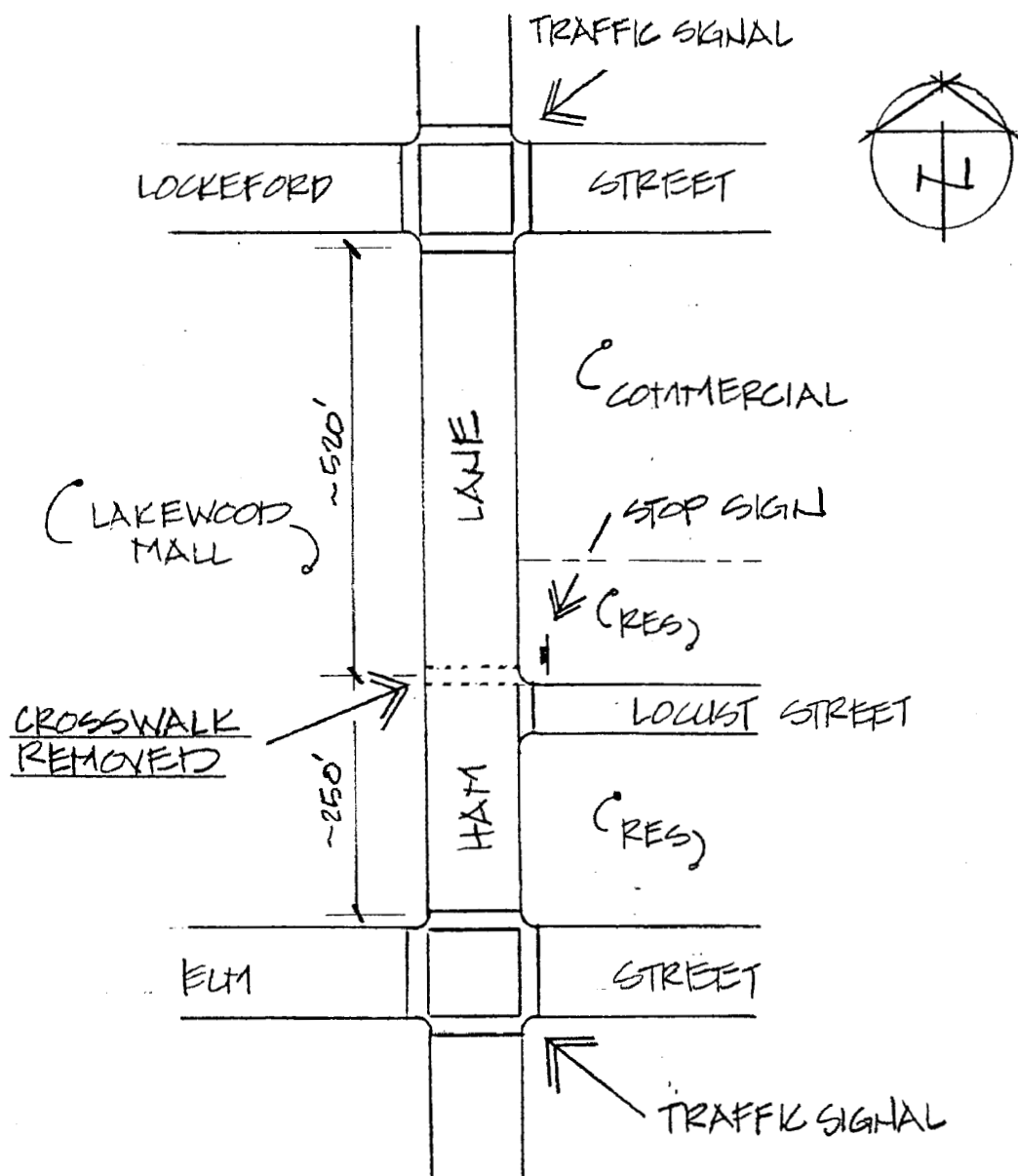
Attachments

cc: Police Chief
Street Superintendent
Associate Traffic Engineer
Concerned Citizen



CITY OF LODI

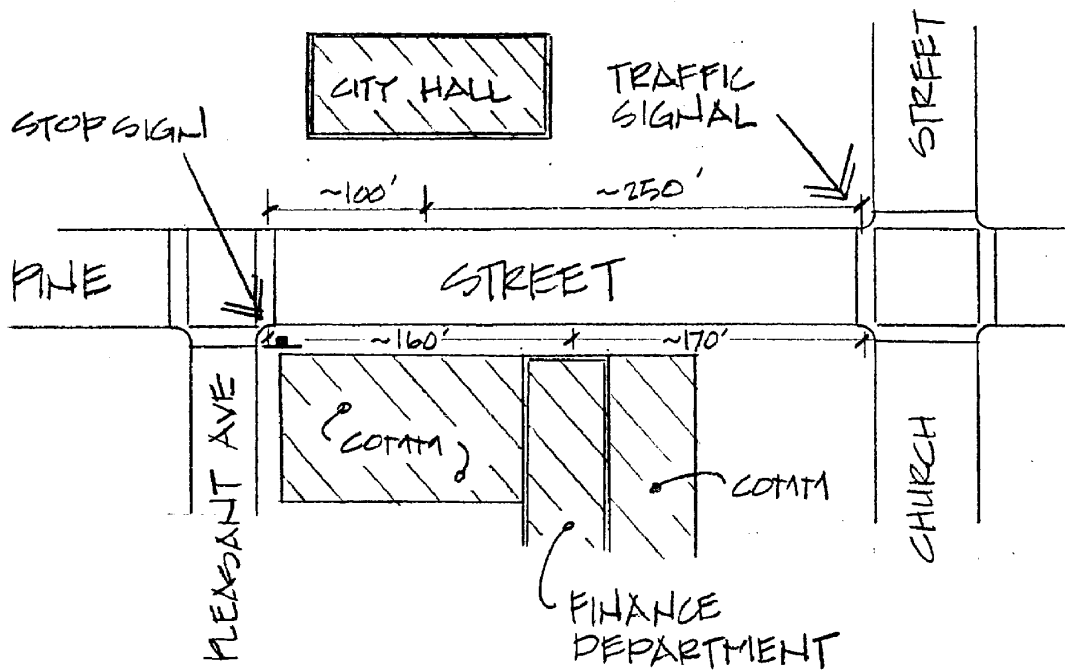
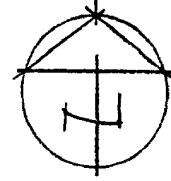
HAM LANE @ LOCUST STREET
EXISTING CONDITIONS





CITY OF LODI

PINE STREET, CHURCH - PLEASANT
EXISTING CONDITIONS



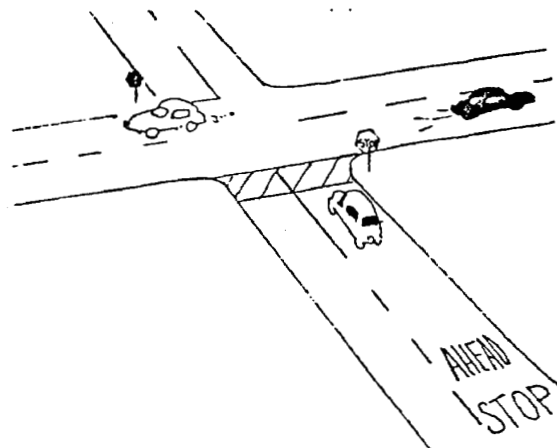
CROSSWALKS

WHEN IS A CROSSWALK UNSAFE?

Apparently, whenever it is painted on the street!

A number of years back, the City of San Diego published some startling results of a very extensive study of the relative safety of marked and unmarked crosswalks. San Diego looked at 400 intersections for five years (without signals or four-way stops) that had a marked crosswalk on one side and an unmarked crosswalk on the other. About two and one half times as many pedestrians used the marked crosswalk, but about six times as many accidents were reported in the marked crosswalks! Long Beach studied pedestrian safety for three years (1972 through 1974) and found eight times as many reported pedestrian accidents at intersections with marked crosswalks than at those without. One explanation of this apparent contradiction of common sense is the false security pedestrians feel at the marked crosswalk. Two painted lines do not provide protection against an oncoming vehicle and the real burden of safety has to be on the pedestrian to be alert and cautious while crossing any street. A pedestrian can stop in less than three feet, while a vehicle traveling at 25 MPH will require 60 feet and at 35 MPH approximately 100 feet.

The California Vehicle Code says that a crosswalk exists at all intersections unless pedestrian crossing is prohibited by signs. Some of these crosswalks are marked with painted lines, but most of them are not. Pedestrian crosswalk marking is a method of encouraging pedestrians to use a particular crossing. Such marked crossings may not be as safe as an unmarked crossing at the same location. Therefore, crosswalks should be marked only where necessary for the guidance and control of pedestrians, to direct them to the safest of several potential routes.



IM/1-77

Southern California Section

Marked Crosswalks

What are the official guidelines?

The City of San Buenaventura follows State policies and the California Vehicle Code. The Code requires us to follow the national guidelines outlined in the State Traffic Engineering Manual. Traffic control devices include signal lights, traffic signs, and paint markings. The State Manual covers all aspects of the placement, construction and maintenance of every form of approved traffic control. The guidelines prescribe five basic requirements for all devices. They must:

- *Fulfill a need.*
- *Command attention.*
- *Convey a clear, simple meaning.*
- *Command respect of road users.*
- *Give adequate time for proper response.*

The State Manual emphasizes "uniformity" of traffic control devices. A uniform device conforms to the regulations for dimensions, color, wording and graphics. The standard device should convey the same meaning at all times. Consistent use of traffic control devices protects the clarity of their messages. As stated in the State Manual, "uniformity" must also mean treating similar situations in the same way.

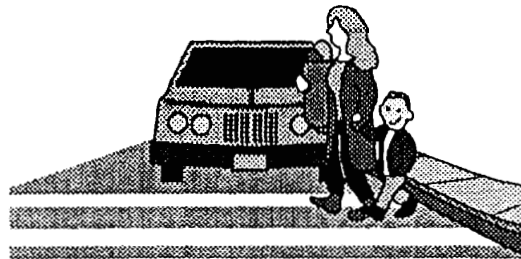
What is a crosswalk?

Crosswalks are either "marked" or "unmarked". The California Vehicle Code defines a "crosswalk" as the portion of a roadway at an intersection, which is an extension of the curb and property lines of the intersecting street or is any other portion of a roadway which is marked as a pedestrian crossing location by painted lines.

A "marked crosswalk" is any crosswalk which is delineated by white or yellow painted markings placed on the pavement. All other crosswalk locations are therefore "unmarked".

How are crosswalks used?

At any crosswalk (marked or unmarked) drivers must yield the right-of-way to pedestrians. Crosswalks are marked mainly to encourage pedestrians to use a particular crossing.



Studies conducted on the relative safety of crosswalks support minimal installation of marked crosswalks.

The City of San Diego studied intersections at which there were both marked and unmarked crosswalks. The results were surprising. Although 2 1/2 times as many people used the marked crosswalks, 6 times as many accidents

occurred in the marked crosswalks. A pedestrian safety study in Long Beach, reported 8 times as many accidents in marked crosswalks compared to unmarked crosswalks. Similar studies in other cities have confirmed these results.

Such research suggests that a marked crosswalk can give pedestrians a false sense of security. At all crosswalks, both unmarked and marked, it is the pedestrians' responsibility to be cautious and alert while crossing.

Where are crosswalks normally marked?

Crosswalks are marked at intersections where there is substantial conflict between vehicle and pedestrian movements, where significant pedestrian concentrations occur, where pedestrians could not otherwise recognize the proper place to cross, and where traffic movements are controlled. Examples of such locations are:

- *Approved school crossings.*
- *Signalized and four way stop intersections where there is significant pedestrian traffic and one or more crossing locations have been prohibited.*

These examples follow the philosophy of marking crosswalks as a form of encouragement. In the first case, we are encouraging school children to use a crossing which is normally being monitored. In the second case, we are encouraging all pedestrians to avoid a prohibited crossing. It is the City's policy not to paint crosswalks at midblock locations where traffic is not controlled by stop signs or traffic signals. Painted crosswalks should only be used where necessary to direct pedestrians along the safest route.

Traffic Engineering – Myths and Realities

BENJAMIN E. BURRITT, P.E.

Associate Vice President,

Daniel, Mann, Johnson, & Mendenhall,
Phoenix, Arizona

TRAFFIC engineers and the public often carry severe handicaps when dealing with each other because they simply do not talk the same language, they do not understand the nature of each other's problems, or both. This is understandable when you realize that engineers approach traffic problems on the basis of data analysis, applying engineering principles, developing alternative solutions, and selecting the best course of action — whereas the citizen is usually interested in getting something done quickly to solve what he perceives to be an obvious problem.

One of the greatest obstacles a professional traffic engineer faces in applying sound principles of traffic control is that everyone who has a driver's license is convinced that they are traffic experts. Consequently, the traffic engineer is often given not only the diagnosis of a traffic problem, but a remedy as well. For example, someone calls and says, "I almost got hit turning left at Buckeye Road and 51st Avenue — what we need there is a left turn arrow — how long will it take to put it in?" In a sense this would be like calling your doctor and saying, "Doc, I've got a pain in my stomach — what I need is my appendix removed — how soon can you do the operation?"

At this point let me hasten to say that most traffic engineers encourage information, suggestions, and input from the public. This is one of the ways that they become aware of existing or potential traffic operational problems. Engineers must be receptive to input from the public and attempt to overcome the built-in handicaps by trying to communicate in a common understandable language.

What I would like to do now is to review a couple of the myths and realities pertaining to traffic engineering and traffic controls.

Myth Number 1: The public knows and cares about traffic engineering principles, objectives, analyses, alternatives, or methods.

Reality: The familiar expression "Don't confuse me with facts, my mind is made up!" unfortunately has widespread acceptance. The public is handicapped by a short attention span and an aversion to facts, logic, or

viewpoints that are contrary to its personal opinions and emotions.

Myth Number 2: Traffic control devices (signs, signals, and markings) provide an effective solution to almost any traffic problem.

Reality: There is widespread public unwillingness to accept abundant evidence of limited effectiveness of various devices in solving basic design or construction deficiencies. The political need to "do something that might help, doesn't cost much, and can't hurt" is overpowering and further encourages the public demand. The fallacy lies in thinking that a safer condition prevails when actually this may not be the case.

Let's take a look at a few of the common traffic controls in view of the myths and the realities.

Pedestrian Crosswalks

How safe are they? How secure are you in a crosswalk? Marked crosswalks are widely classified as "safety devices" and most jurisdictions give the pedestrian the right-of-way when within them.

Interestingly, however, there is strong evidence that these very facts prompt many pedestrians to feel overly secure when using a marked crosswalk — to the degree that they aggressively place themselves in a hazardous position with respect to vehicles in the mistaken belief that the motorist can and will stop in all cases, even when it may be impossible to do so. It is not unusual, also, for this type of aggressive pedestrian behavior to cause rear-end collisions.

By contrast, a pedestrian using an unmarked crosswalk generally feels less secure, less certain that the motorist will stop — and exercises more caution in waiting for safe gaps in traffic before crossing. The end result is fewer accidents at unmarked crosswalks.

One of the commonly accepted functions of the marked crosswalk is that it serves as a warning device to the motorists. Yet, studies show that the motorists' views of a crosswalk are greatly reduced when they are at the safe stopping sight distance — where they should be able to perceive and react to a pedestrian in a crosswalk — due to the effects of foreshortening and distance diminishment. Their view of the crosswalk is further affected by road alignment, irregularities in the pavement, and other variables like weather, dirty

windshields, glare, and adverse lighting conditions.

Meanwhile, pedestrians' views of the same crosswalk are quite impressive and they are prone to assume that, since they can see the crosswalk so well, certainly motorists can see it just as clearly. This resulting overconfidence is seen as another factor in the disproportionate share of accidents in marked crosswalks.

Does this mean marked crosswalks should not be installed? Not necessarily. The marked crosswalk is a useful device for channelizing pedestrians and helping pedestrians find their way across complex and confusing intersections. The decision to install or not install a marked crosswalk should not be taken lightly. Rational warrants have been adopted by many governmental jurisdictions for their installation.

It is important that the general public recognize what marked crosswalks can and cannot do. It is also important that public officials not install them, unless the anticipated benefits outweigh the risks.

CITY COUNCIL

DAVID P. WARNER, Mayor
PHILLIP A. PENNINO
Mayor Pro Tempore
RAY G. DAVENPORT
STEPHEN J. MANN
JACK A. SIEGLOCK

CITY OF LODI

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H. DIXON FLYNN
City Manager
JENNIFER M. PERRIN
City Clerk
RANDALL A. HAYS
City Attorney

September 26, 1996

Ms. Beverly Hoage
1230 W. Locust St.
Lodi, CA 95240

SUBJECT: Request for Marked Pedestrian Crosswalks Across Ham Lane at
Lakewood Mall and Across Pine Street at City Hall

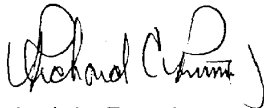
Enclosed is a copy of background information on an item on the City Council agenda of Wednesday, October 2, 1996, at 7 p.m. The meeting will be held in the City Council Chamber, Carnegie Forum, 305 West Pine Street.

This item is on the consent calendar and is usually not discussed unless a Council Member requests discussion. The public is given an opportunity to address items on the consent calendar at the appropriate time.

If you wish to write to the City Council, please address your letter to City Council, City of Lodi, P. O. Box 3006, Lodi, California, 95241-1910. Be sure to allow time for the mail. Or, you may hand-deliver the letter to the City Clerk at 221 West Pine Street.

If you wish to address the Council at the Council meeting, be sure to fill out a speaker's card (available at the Carnegie Forum immediately prior to the start of the meeting) and give it to the City Clerk. If you have any questions about communicating with the Council, please contact Jennifer Perrin, City Clerk, at (209) 333-6702.

If you have any questions about the item itself, please call Rick Kiriou at (209) 333-6706.



Jack L. Ronsko
Public Works Director

JLR/lm

Enclosure

cc: City Clerk ✓

RESOLUTION NO. 96-147

A RESOLUTION OF THE LODI CITY COUNCIL
REINSTATING THE MARKED PEDESTRIAN CROSSWALK ACROSS
HAM LANE AT LOCUST STREET

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BE IT RESOLVED, that the Lodi City Council does hereby approve the reinstatement of the marked pedestrian crosswalk across Ham Lane at Locust Street, as shown on Exhibit A attached hereto and made a part hereof.

Dated: October 2, 1996

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I hereby certify that Resolution No. 96-147 was passed and adopted by the City Council of the City of Lodi in a regular meeting held October 2, 1996, by the following vote:

AYES: COUNCIL MEMBERS - Davenport, Mann, Pennino, Sieglock
and Warner (Mayor)

NOES: COUNCIL MEMBERS - None

ABSENT: COUNCIL MEMBERS - None

ABSTAIN: COUNCIL MEMBERS - None


JENNIFER M. PERRIN
City Clerk



CITY OF LODI

HAM LANE @ LOCUST STREET
EXISTING CONDITIONS

